Date: Wed, 11 May 94 12:59:58 PDT

From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>

Errors-To: Info-Hams-Errors@UCSD.Edu

Reply-To: Info-Hams@UCSD.Edu

Precedence: Bulk

Subject: Info-Hams Digest V94 #512

To: Info-Hams

Info-Hams Digest Wed, 11 May 94 Volume 94 : Issue 512

Today's Topics:

(none)

2m J-Pole at 70cm
46 Mhz & 49 Mhz advice wanted
50 MHz opening in Europe
ALASKA NORTH SLOPE COMMUNICATIONS
Amateur Radio Newsline #873 6 May 94
A new type of ham radio club / station

HDN Releases
Help:Bootleggers in area
HF & TVRO receiver
How to make a diplexer?
Info-Hams Digest V94 #509
IPS Daily Report - 10 May 94
Looking for "SuperMorse"
Ni-Metal-Hydride batts for handhelds?
UHF Wideband HT's -any ideas?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu> Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 6 May 94 21:30:56 GMT From: news-mail-gateway@ucsd.edu

Subject: (none)

To: info-hams@ucsd.edu

We have received a science grant to visit the North Slope of Alaska, on the Artic Ocean, at Point Franklin which is a barren penusula located beteen Barrow and Wainright. The purpose is for archeological exploration. I will visit about 5 times over a period of three years starting in July 1994. Need to contact someone on the best way (equipment and procedures) to set up a briefcase size packet link through----what, a sattelite? There is no power where I am going, except batteries and a charging generator that will be used to power the laptops used for data logging.

Also, need comments on best HF setup. I have a Kenwood TS-50 and tuner but need comments on antennas and bands. The home QTH is Pittsburgh, PA.

```
You may Internet to:
Bob, K3ZAU
bob@silver.usbm.gov
  ______
Date: 10 May 1994 05:01:13 GMT
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!agate!
kabuki.EECS.Berkeley.EDU!kennish@network.ucsd.edu
Subject: 2m J-Pole at 70cm
To: info-hams@ucsd.edu
In article <cb.17840.2099.OND04E23@nitelog.com>,
Greg Pool <greg.pool@nitelog.com> wrote:
>GG> I recently obtained by FTP the instructions for making a 2m
>GG>J-Pole antenna from 300 ohm cable. It said that this ant should also work
>GG>on 70 cm. Does anyone have experience doing this? or is it much better to
>GG>make a J-Pole specially for 70 cm?
>Yes it will, depending on the dimensions. We had Art Hoffman WA6TVN do
>some tests on a common J-pole design and found it was resonant on 70 cm
>but it's take-off angle is higher than the 2 m. You might want to tilt
>it toward the station or repeater you talk to for better results.
>Aloha+73 de Greg WH6DT
>
> ≥ OLX 2.1 TD ≥ Darn cat...get off the keyb*$%#%&(&***%^&%
                                                            NO CARRIER
```

I agree. After some thought on this matter, the above makes sense. Consider that a J-pole is a 1/2 wave end fed antenna with a 1/4 wave matching section. Addition of 1/2 wave sections doesn't do anything from a driving point impedance (once around the Smith Chart)... So, at 3x the frequency, the 2m J-pole becomes a 3/2 wave end fed antenna with a 3/4 wave matching section. Remove the extra 1/2 wave multiples and it should exhibit the same impedance.

Alas, there is a problem. Consider the 3/2 wave radiating portion. It

is really 3 stacked 1/2 wave units. Many omni-gain units use stacked dipoles to squash the pattern to the horizon. However, what's missing in the J-pole is the phase reversing elements. The three dipoles are stuck end to end -- that is, the middle 1/2 wave section is opposite in polarity to the end sections. This results in gross cancellation of the pattern towards the horizon. Directly along the antenna (pointing up), the patterns all add constructively and form the main lobe. Another way to look at this is that the antenna begins to approximate a longwire, which has its main lobe along the axis of the wire.

So, I've come to the conclusion that although it loads up fine and presents a proper impedance, a 2m J-pole at 440 MHz puts the energy in the wrong place, unless you are working birds :-)

Now, if you put phasing coils (ala cell phone antennas) between the 1/2 wave sections, the thing could work REAL well. Been thinking about this. Will report if I discover (or rather recreate) anything useful.

-Ken

Date: 7 May 94 22:57:00 GMT

From: sdd.hp.com!sgiblab!wetware!spunky.RedBrick.COM!psinntp!psinntp!factory!

ray.normandeau@decwrl.dec.com

Subject: 46 Mhz & 49 Mhz advice wanted

To: info-hams@ucsd.edu

I own a Bearcat/Uniden 210-XW scanner.

I would like to increase the reception in the 46 MHz and 49 bands.

I was given a mag-mount with removable antenna coil but no antenna.

The coil part which I unscrewed from the mag-mount says K-40 and I think that this was made for around 466.1500 MHz.

What can I add to the coil to get the reception in the 46 MHz and 49 bands that I want?

The coil has a set screw.

Thanks

Date: 10 May 94 09:48:47 GMT

From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!EU.net!sun4nl!

ruuinf!ruunfs.fys.ruu.nl!faculty.chem.ruu.nl!besten@network.ucsd.edu

Subject: 50 MHz opening in Europe

To: info-hams@ucsd.edu

On the 9th of may the ZD8VHF beacon was heard via multi hop Es and surprisingly 5T5JC (IL30, Mauretania) was worked by PAoJMH, PA3BFM, PAoRDY, PAoHIP and PA3FYM. The first stations worked him during a 20 minute opening in SSB, the last station during a 1 minute opening an hour later in CW. Times: first opening 18.20 - 18.40 UTC, second opening was only one minute at 19.30 UTC. Signals were in the 55 - 57 range.

Prior to the multihop openings, Spanish stations could be worked with moderate signals.

Remco, PA3FYM

Date: 11 May 94 15:15:03 GMT From: news-mail-gateway@ucsd.edu

Subject: ALASKA NORTH SLOPE COMMUNICATIONS

To: info-hams@ucsd.edu

We have received a science grant to visit the North Slope of Alaska, on the Artic Ocean, at Point Franklin which is a barren uninhabited peninsula located between Barrow and Wainright. The purpose is for archeological exploration with a 3-D ground penetrating imaging system. I will visit about 5 times over a period of three years starting in July 1994. I need advice on the best way (equipment and procedures) to set up a briefcase size packet link through a satellite. There is no power where I am going, except batteries and a charging generator that will be used to power the laptops used for data logging.

Also, need comments on HF setup. I have a Kenwood TS-50 and tuner but need comments on antennas and bands. The communications link desired is from the Alaska site back to Pittsburgh, PA.

You may Internet to: Bob, K3ZAU bob@silver.usbm.gov

Date: Tue, 10 May 1994 18:42:18 GMT From: brunix!pstc3!md@uunet.uu.net Subject: Amateur Radio Newsline #873 6 May 94 To: info-hams@ucsd.edu In article <WrspjGG8yPj1063yn@dorsai.dorsai.org>, bigsteve@dorsai.dorsai.org (Steve Coletti) writes: |> One of those attending the amateur group meeting is Yaesu USA's |> Kevin Karamanos, WD6DIH. |> |> "I think in the long term the industry is going to try to get > together and promote the technician to move up to general class |> and hopefully populate the HF bands. We need to do what ever we |> can to get more folks up there and move up." Kevin Karamanos, |> WD6DIH, Yaesu USA. "We need to do what ever we can to get more folks up there"? Sounds like good rationale for completely eliminating the code requirement for HF access. I'm sure the concept of just making people extend a little *effort* to get access to those bands never entered their mind. Gosh no, wouldn't want to make it hard now... that would be bad for sales. MD -- Michael P. Deignan -- RI Center For Political Incorrectness & Environment Ignorance -- 'Have you hugged your chainsaw today?' Date: Mon, 09 May 94 19:12:24 GMT From: ihnp4.ucsd.edu!mvb.saic.com!news.cerf.net!usc!cs.utexas.edu!convex! news.duke.edu!eff!news.kei.com!hookup!news2.sprintlink.net!news.sprintlink.net! indirect.com!usenet@network.ucsd.edu Subject: A new type of ham radio club / station To: info-hams@ucsd.edu In article <1994May9.174007.28632@rsg1.er.usgs.gov> bodoh@dgg.cr.usgs.gov writes: > In article <2qg1o5\$j18@Mercury.mcs.com>, svb@MCS.COM (Stephan Bechtolsheim) > writes:

> |>

maximum of around 10 members.

```
> |>
          - $50 to $75 / month membership. With 10 members that
> |>
                  amounts to a 'club income' of $6000 - $9000 a year.
> |>
          - Nice and heafty sign up fee of, let's say, $300.
> |>
          - Buy / rent some room somewhere.
> |>
          - Every member would have a key to that room.
> |>
          - This room would be filled with state-of-the-art
> |>
            equipment:
> |>
            1. REAL good and big antennas (theory: if the last
> |>
               storm didn't blow them down, they were not high
> |>
               enough). Like how about a 120 foot tower.
            2. Nice low band rig with all the goodies, like
> |>
> |>
               amplifier, filters, RTTY, AMTOR, ...
Sounds like a bunch of elitists to me. This is not within the spirit of
amateur radio at all.
I'd say that such a club should be frowned upon by the amateur community
and not given any undeserved respect. 73
Darrell Shandrow at Arizona State University
Mentor: Internet Direct Mentorship Program!
Member: National Federation of the Blind
(The complete information access agenda - You print it you braille it too!)
Darrell Shandrow at Arizona State University
Mentor: Internet Direct Mentorship Program!
Member: National Federation of the Blind
(The complete information access agenda - You print it you braille it too!)
_____
Date: Sat, 07 May 1994 21:56:07
From: galaxy.ucr.edu!library.ucla.edu!csulb.edu!nic-nac.CSU.net!usc!
howland.reston.ans.net!europa.eng.gtefsd.com!news.umbc.edu!eff!news.duke.edu!
convex!seas.smu.edu!rwsys!@@ihnp4.ucsd.edu
Subject: HDN Releases
To: info-hams@ucsd.edu
The following files were processed Saturday 5-7-94:
HAMNEWS
          [ HAM: Bulletins and Newsletters ]
ANART806.ZIP (
                7379 bytes) ANART Bulletin #806 04/24/94
ARLP018.ZIP (
                2087 bytes) ARRL Propagation Bulletin 05/06/94
               4887 bytes) BARTG Bulletin 017 May, 1994
BARTG017.ZIP (
                3707 bytes) IRTS Bulletin 04/24/94
IRTS0424.ZIP (
```

4012 bytes) IRTS Bulletin 05/01/94

NEWS0429.ZIP (10253 bytes) NewsLine #872 04/29/94

IRTS0501.ZIP (

Total of 81113 bytes in 15 file(s)

Files are available via Anonymous-FTP from ftp.fidonet.org IP NET address 140.98.2.1 for seven days. They are mirrored to ftp.halcyon.com and are available for 60-90 days.

Directories are:

```
pub/fidonet/ham/hamnews (Bulletins)
              /hamant (Antennas)
              /hamsat (Sat. prg/Amsat Bulletins)
              /hampack (Packet)
              /hamelec (Formulas)
              /hamtrain (Training Material)
              /hamlog (Logging Programs)
              /hamcomm (APLink/JvFax/Rtty/etc)
              /hammods (Equip modification)
              /hamswl (SWBC Skeds/Frequencies)
              /hamscan (Scanner Frequencies)
              /hamutil (Operating aids/utils)
              /hamsrc (Source code to programs)
              /hamdemo (Demos of new ham software)
                        (TCP/IP and NOS related software)
              /hamnos
```

Files may be downloaded via land-line at (214) 226-1181 or (214) 226-1182. 1.2 to 16.8K, 23 hours a day .

When ask for Full Name, enter: Guest; guest <return>

lee - ab5sm

Ham Distribution Net

* Origin: Ham Distribution Net Coordinator / Node 1 (1:124/7009)

Date: Tue, 10 May 1994 16:32:04 GMT

From: news.acns.nwu.edu!math.ohio-state.edu!howland.reston.ans.net!gatech!news-

feed-1.peachnet.edu!news.duke.edu!eff!news.kei.com!yeshua.marcam.com!

charnel.ecst.csuchico.edu!olivea@ihnp4.ucsd.edu

Subject: Help:Bootleggers in area

To: info-hams@ucsd.edu

Well it could be worse; it not as if a lot of hams actually use 148.00 ourselves for a lot of work...

- -

Grady Ward +1 707 826 7715 grady@netcom.com

Date: 10 May 94 08:27:00 -0500

From: blkcat!org!fidonet!z1!n109!f239!William.Boan@uunet.uu.net

Subject: HF & TVRO receiver

To: info-hams@ucsd.edu

John,

Does my HF receiver have the required bandwidth for this use when operating in the FM mode? At present I have a APT system but, I don't like the fact that with the NOAA birds, you can'nt frame loop the images. Does my HF recv. have to have the same wide bandwith as used for APT?

You said that their were other signal to be heard with this HF/TVRO combination. When you tune the ASC, whats out there...? Have you used this HF/TVRO yourself? I do not have a TVRO system, however I have been thinking about buying one for some time now. Any suggestions on what type of TVRO system I should get?

How the weather in Canada? William.

* SLMR 2.1a * The only people who never fail are those who never try!

Fidonet: William Boan 1:109/239

Internet: William.Boan@f239.n109.z1.fidonet.org

Date: Mon, 09 May 1994 11:47:30 -0400

From: ftpbox!mothost!lmpsbbs!NewsWatcher!user@uunet.uu.net

Subject: How to make a diplexer?

To: info-hams@ucsd.edu

In article <CpD0tC.8Hy@srgenprp.sr.hp.com>, alanb@sr.hp.com (Alan Bloom)
wrote:

> John E. Lundgren (jlundgr@eis.calstate.edu) wrote:

- > : That's not a diplexer schematic in the previous post. It's essentially a
- > : VHF / UHF splitter, which is really just hi pass and lo pass filters in
- > : the same box. Diplexers use exotic things like cavities and magic T's.
- > : What? You've never heard of a magic T?

And what do you think a duplexer/diplexer does differently? It operates as a multi-port isolating device with two (or more) tuned ports all connected in parallel to a common port where the antenna (typically) is connected. The electrons do not care whether the circuit L and C constants are lumped on a PC board or distributed along coaxial (or balanced) line segments.

>

- > The vocabulary used by 2-way radio folks uses the word "duplexers"
- > for the multi-cavity resonators used on repeaters. The word "diplexer" is
- > reserved for a device that combines two wider-spaced frequency bands, as
- > per the schematic in the previous post.

>

> AL N1AL

The only difference between your definitions is the undefined term "wider-spaced" frequency bands. The land mobile industry makes no distinction at present between the two terms and they often use the same hardware interchangeably to provide either function or both simultaneously.

Back in the days when TV was emerging, the term "diplexer" applied to the filters combining the two Video and Audio transmitters onto a single transmission line (Dual Insert = DI-plex) and the "duplexer" was used to let a single radio operate DUPLEX (Tx and Rcv simultaneously) on the same antenna. Today a general term "antenna combining network" covers both applications without any artifical restrictions based on vowels or historical misunderstandings.

- -

Karl Beckman, P.E. < The difference between genius and stupidity >
Motorola Comm - Fixed Data < is that genius has its limits. -Unknown >

The statements and opinions expressed here are not those of Motorola Inc.

Amateur radio WA8NVW @ K8MR.NEOH.USA.NA NavyMARS VBH @ NOGBN.NOASI

Date: 11 May 94 18:25:16 GMT From: news-mail-gateway@ucsd.edu Subject: Info-Hams Digest V94 #509

To: info-hams@ucsd.edu

>Subject: Alternate power

>I'm wondering what is the best way to connect both the batteries and the supply >so that the batteries receive the right charge current and also take over when >the power supply goes off. Can anyone point me to a article or FAQ along these >lines?

>Thanks, >scurrie

I don't remember the issue, but check the annual index to QST for the last year or two in the "Hints & Kinks" section. There was a novel circuit using auto headlamp in series with an AC/DC power supply to charge batteries for just the purpose you request. The auto light limited the current draw of the power supply at full demand, yet kept a constant charge on the batteries.

The article showed use of isolation diodes and MOV's as well; sorry I don't remember the actual issue.

Bob, WB5FBS bobpriez@selu.edu

Date: Tue, 10 May 1994 23:27:27 GMT

From: ihnp4.ucsd.edu!munnari.oz.au!newshost.anu.edu.au!sserve!usage!metro!ipso!

rwc@network.ucsd.edu

Subject: IPS Daily Report - 10 May 94

To: info-hams@ucsd.edu

SUBJ: IPS DAILY SOLAR AND GEOPHYSICAL REPORT ISSUED AT 10/2330Z MAY 1994 BY IPS RADIO AND SPACE SERVICES FROM THE REGIONAL WARNING CENTRE (RWC), SYDNEY. SUMMARY FOR 10 MAY AND FORECAST UP TO 13 MAY

IPS Warning 12 was issued on 25 APR and expires 11 MAY.

IPS Warning 13 was issued on 09 MAY and is current for 12-16 MAY.

1A. SOLAR SUMMARY Activity: very low

Flares: none.

Observed 10.7 cm flux/Equivalent Sunspot Number: 080/020

1B. SOLAR FORECAST

11 May 12 May 13 May Activity Very low Low Low

Fadeouts None expected None expected None expected

Forecast 10.7 cm flux/Equivalent Sunspot Number : 081/022

1C. SOLAR COMMENT

None.

2A. MAGNETIC SUMMARY

Geomagnetic field at Learmonth: unsettled to active

Estimated Indices : A K Observed A Index 9 May

Learmonth 19 3443 4333

Fredericksburg 17 24 Planetary 24 24

Observed Kp for 9 May: 4545 3333

2B. MAGNETIC FORECAST

DATE Ap CONDITIONS

11 May 22 Unsettled to active.

12 May 18 Unsettled. 13 May 18 Unsettled.

2C. MAGNETIC COMMENT

None.

3A. GLOBAL HF PROPAGATION SUMMARY

LATITUDE BAND

DATE LOW MIDDLE HIGH 10 May normal normal fair

PCA Event : None.

3B. GLOBAL HF PROPAGATION FORECAST

LATITUDE BAND

DATE	LOW	MIDDLE	HIGH
11 May	normal	fair	poor
12 May	normal	fair	poor
13 May	normal	fair	poor
3C. GLOBAL	HF PROPAGATION	COMMENT	

NONE.

4A. AUSTRALIAN REGION IONOSPHERIC SUMMARY MUFs at Sydney were about 10% below predicted monthly values

Observed T index for 10 May: 11

Predicted Monthly T Index for May is 30.

4B. AUSTRALIAN REGION IONOSPHERIC FORECAST

DATE T-index MUFs

11 May 15 About 10% below predicted monthly values.

20 Near predicted monthly values. 12 May

20 Near predicted monthly values. 13 May

4C. AUSTRALIAN REGION COMMENT None.

| IPS Radio and Space Services 8331 | PO Box 5606 IPS Regional Warning Centre, Sydney email: rwc@ips.oz.au fax: +61 2 4148331 RWC Duty Forecaster tel: +61 2 4148329 |West Chatswood NSW 2057 Recorded Message tel: +61 2 4148330 |AUSTRALIA

Date: Mon, 09 May 94 20:28:22 PDT

From: pacbell.com!amdahl!grafex.sbay.org!ka6etb@decwrl.dec.com

Subject: Looking for "SuperMorse"

To: info-hams@ucsd.edu

starling@ripav33.rtp.dg.com (Johnny Starling) writes:

- > My father is looking for a DOS program called "SuperMorse", or at least
- > that's what he thinks the name is. It's supposed to help you study the
- > morse code, generate test for the different license classes, etc.

> Does anyone know where I can pull this off the internet, or where it can > be purchased, if it indeed does exist. thanks

It's available from HAM-server. Send email to ham-server@grafex.sbay.org

In the text place:

get /hamradio/morse/sm410.zip

There are others available, as well. To get an index, add:

get /hamradio/index.txt

s

Date: 9 May 1994 21:31:10 GMT

From: ihnp4.ucsd.edu!pacbell.com!sgiblab!sdd.hp.com!col.hp.com!fc.hp.com!

news.lvld.hp.com!scott@network.ucsd.edu

Subject: Ni-Metal-Hydride batts for handhelds?

To: info-hams@ucsd.edu

Ken A. Nishimura (kennish@kabuki.EECS.Berkeley.EDU) wrote:

: You forgot the most important trait of NiMH batteries.... They leak like : a sieve! Their shelf life (self discharge) is VERY poor. You can easily

: lose 25% in 2-3 days. From what I've seen and had confirmed, they suffer

: a 20% or so leakage of charge in the first couple of days, then they

: self-discharge like NiCds, and are useless after 30 days.

My direct experience suggests that leakage may be even worse than Ken describes. I use a pair of NiMHs in my Toshiba T4500C laptop. The performance has been extremely disappointing. While they do charge rapidly, they discharge almost as rapidly. Noticable discharge happens within hours, and almost complete discharge in days. Keeping your second "spare" battery going with a reasonable charge is almost impossible. Given standard usage for an HT, I'll stick with NiCads for the time being thanks.

Scott Turner KGOMR scott@hpisla.LVLD.HP.COM

Date: 9 May 1994 21:50:46 GMT

From: ihnp4.ucsd.edu!pacbell.com!sgiblab!sdd.hp.com!swrinde!cs.utexas.edu! howland.reston.ans.net!agate!kabuki.EECS.Berkeley.EDU!kennish@network.ucsd.edu

Subject: UHF Wideband HT's -any ideas?

To: info-hams@ucsd.edu

In article <2qm6pl\$9j7@sbctri.sbc.com>,
Kenneth M. Gianino <gianino@sbctri.sbc.com> wrote:
>Is there a good, UHF only HT out there that can be modified to transmit and
>receive up to 470MHz? I don't mind retuning and losing the part or all of the
>70cm band. I've checked the mods servers and there seems to be very little
>interest in the UHF siblings of the current crop of 2m HT's. I'm not

>interested in dual band units. Anyone out there experienced with the Yaesu >FT-73? I need an easily tunable unit for testing UHF GMRS repeaters and I am >aware of the type acceptance problems if used on the air. I'm also aware of >the type accepted units on the market that are very expensive and awkward to >program. Any information would be appreciated. Thanks in advance.

>-Ken WBOQNA gianino@sbctri.sbc.com

I don't know about the FT-73, but the Yaesu FT-41 with the appropriate mods will transmit up to 470 Mhz. The mod itself is for MARS/CAP and specified a 420-460 MHz range, but I have tested the unit to 470 MHz on the analyzer here at work, and it seems to work. Variations in the VCO from unit to unit may make it somewhat flaky out at 470 MHz. Very small unit, low voltage amplifier. Not a lot of RF output with the standard battery pack.

Of course, I don't guarantee that your unit (if you choose to buy one and mod it) will work to 470 MHz. Your mileage may vary. Oh, and you'll have to get the mods from someone other than me -- I hate to be this way, but since you have freely admitted that you would be doing something illegal, I won't help you -- call me tighta**ed, but blame the trial lawyers.

Yes, type accepted units are hard to program. That is a requirement of type acceptance -- make it hard for the user to go somewhere he/she isn't supposed to go.

-Ker	1				
End	of	Info-Hams	Digest	V94	#512
